

REMARKS

The statement that claims 7 and 17 are allowable if rewritten in independent form is gratefully acknowledged. These claims have been so rewritten. Accordingly, they are now in condition for allowance.

Claims 1-3, 11-13, 21, and 24 have been amended. Claims 1-26 are pending in the present application. Applicants reserve the right to pursue the original claims in this and any other application.

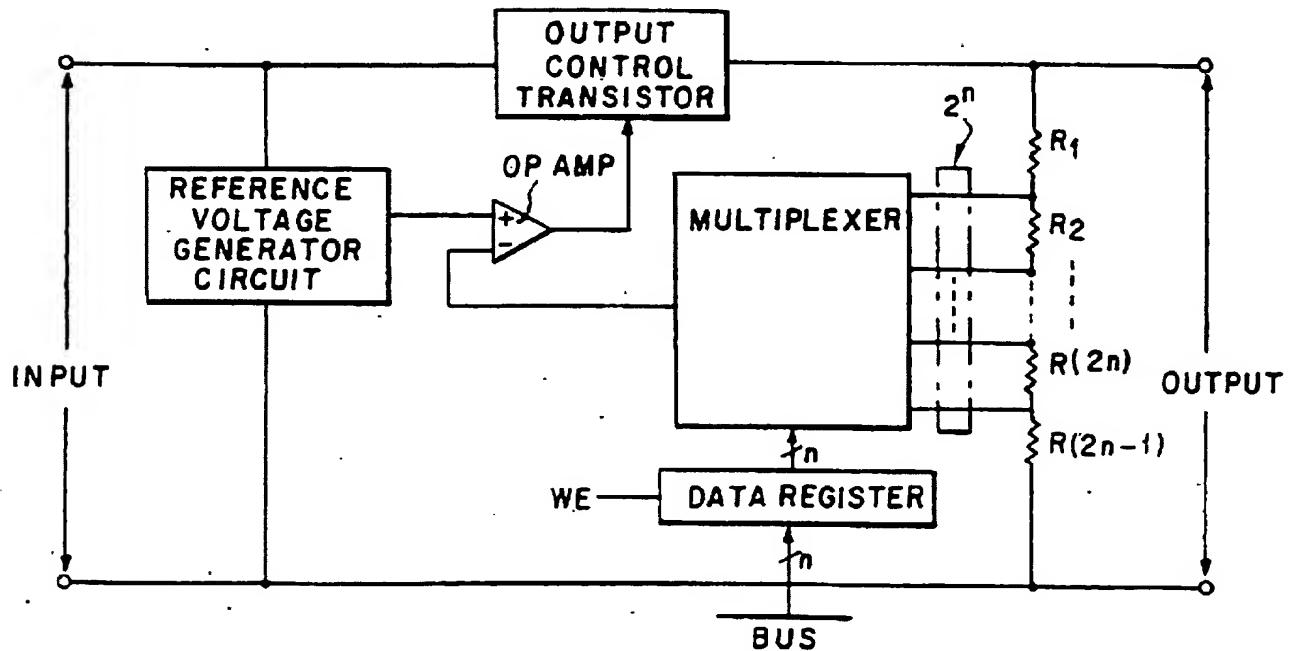
The title of the invention stands objected to as not being descriptive of the invention. The title has been amended to be clearly indicative of the claimed subject matter. That is, the title has been amended to "Power Supply Apparatus Varying An Output Constant Voltage In Response To Control Signal From A Load Circuit." Applicants respectfully submit that the objection to the title be withdrawn.

Claims 1-4, 8, 11-13, 18, 21-22, and 24-26 stand rejected under 35 U.S.C. §102(b) as being anticipated by Takuma (US 4,810,948). Applicants respectfully traverse this rejection.

Claim 1 recites, *inter alia*, "a voltage divider ... compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor." Takuma, by contrast, does not disclose these limitations. Takuma discloses "an output voltage divider compris[ing] a resistor which is divided into elements R₁ to R (2ⁿ + 1)." (emphasis added, col. 1, ln. 52-53.) All of the resistor elements in Takuma are connected in series. Col 1, lines 54-56. In fact, Takuma selects a node between two resistor elements in the single resistor, but all resistance

elements are always used in the voltage divider of Takuma. Takuma has only the single series resistance circuit $R_1 - R(2^n + 1)$ and by choosing a node in between resistors, Takuma changes the composition of the sets when a different voltage ratio is desired. See Takuma Fig. 2 (reproduced below). In the claimed invention, one of the resistance circuits is connected in parallel and at least one of the resistors is switchably controllable. Each of the resistance circuits is discrete and, and none of the elements is exchangeable between the sets. Individual elements from the second resistance circuit may be turned off in the claimed invention. Takuma, therefore, does not disclose all the limitations of claim 1. As such, claim 1 and dependent claims 2-4 and 8 are not anticipated by Takuma.

Takuma Fig. 2



Claim 11 recites “[a] voltage dividing means … compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor.” As discussed above, Takuma does not disclose this limitation. Takuma elects a node within a single resistor with elements in series to set a divided voltage, using all the resistors in series. The present invention uses discrete resistors each from a discrete circuit, where one circuit is connected in parallel and has “at least one switchably controllable resistor.” Takuma does not disclose all the limitations of amended claim 11. As such, claim 11 and dependent claims 12-13 and 18 are not anticipated by Takuma.

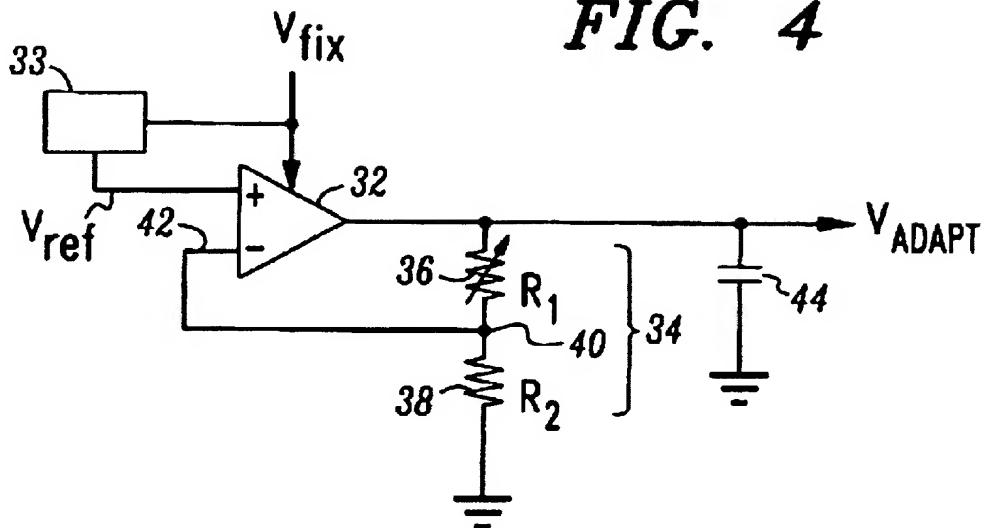
Claim 21 recites “a voltage divider … compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor.” Takuma does not disclose this limitation for at least the reasons set forth above. Instead, Takuma uses only a single resistance circuit connected in series, and has no resistance circuits connected in parallel and no switchably controllable resistor. Takuma does not disclose all the limitations of amended claim 21. As such, claim 21 and dependent claim 22 are not anticipated by Takuma.

Claim 24 recites “a voltage dividing ratio … obtained using a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor.” Takuma does not disclose such a limitation for at

least the reasons set forth above. Takuma does not disclose a method of operating a power supply apparatus. Takuma does not disclose all the limitations of amended claim 24. As such, claim 24 and dependent claims 25-26 are not anticipated by Takuma.

Claims 5-6, 14, and 23 stand rejected under 35 U.S.C. §103 as being unpatentable over Takuma in view of Leonowich (U.S. Patent 6,504,350). Applicants respectfully traverse this rejection.

Claims 5-6 and 9-10 depend from claims 1, and, as such, they recite "said voltage divider comprises a first resistance circuit and a second resistance circuit." In order to establish a *prima facie* case of obviousness "the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. §2142. Neither Takuma nor Leonowich, even when considered in combination, teach or suggest all limitations of claim 1. As discussed above, Takuma does not teach or suggest "a voltage divider ... compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor." Leonowich teaches a "resistor divider network 34 compris[ing] a first resistor 36 (R_1) and a second resistor 38 (R_2)."¹ (Leonowich, col. 3, ln. 4-5), however, Leonowich, like Takuma, does not teach or suggest "[a] second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor."² Leonowich teaches a single resistor circuit 34 with two resistors which may be adjustable. (Leonowich Fig. 4; Col. 3, ln. 58-62)

Leonowich Fig. 4***FIG. 4***

Therefore, Takuma and Leonowich do not teach or suggest “[a] second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor.” Since Takuma and Leonowich do not teach or suggest all of the limitations of amended claim 1, dependent claims 5-6 and 9-10 are not obvious over the cited references. Applicants respectfully request that the rejection of claims 5-6 and 9-10 be withdrawn.

Claims 14-16 and 19-20 depend from claim 11, and, as such, they recite “[a] voltage dividing means ... compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor.” As discussed above, neither Takuma nor Leonowich teaches or suggests “[a] second resistance circuit including a plurality of resistors connectable in parallel including at

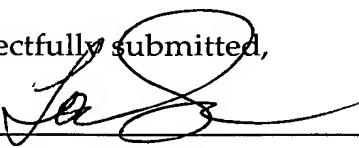
least one switchably controllable resistor" as recited in claim 11. Since Takuma and Leonowich do not teach or suggest all of the limitations of claim 11, dependent claims 14-16 and 19-20 are not obvious over the cited references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 14-16 and 19-20 be withdrawn.

Claim 23 depends from claim 21, and, as such, recites "a voltage divider ... compris[ing] a first resistance circuit including a plurality of resistors connectable in series, and a second resistance circuit connected in series with said first resistance circuit, said second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor." Neither Takuma nor Leonowich, even when combined, teaches or suggests "[a] second resistance circuit including a plurality of resistors connectable in parallel including at least one switchably controllable resistor" as recited in claim 21. Since Takuma and Leonowich do not teach or suggest all of the limitations of claim 21, dependent claim 23 is not obvious over the cited references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claim 23 be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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